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013933534 ***Image available**

WPI Acc No: 2001-417748/200144

Related WPI Acc No: 2001-389882

XRAM Acc No: C01-126218

New stable anhydrous mirtazapine crystals with low hygroscopicity useful as antidepressants

Patent Assignee: SUMIKA FINE CHEM CO LTD (SUMO)

Inventor: IISHI E; IMAMIYA Y

Number of Countries: 023 Number of Patents: 002

Patent Family:

Patent No Kind Date Applcat No Kind Date Week

WO 200138329 A1 20010531 WO 2000JP4835 A 20000719 200144 B

AU 200060199 A 20010604 AU 200060199 A 20000719 200153

Priority Applications (No Type Date): JP 200067476 A 20000310; JP 99333049

A 19991124

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200138329 A1 J 37 C07D-471/14

Designated States (National): AU CA IN JP US

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU

MC NL PT SE

AU 200060199 A C07D-471/14 Based on patent WO 200138329

Abstract (Basic): WO 200138329 A1

NOVELTY - New anhydrous mirtazapine crystals have a moisture absorption of upto 0.6 wt.% when storcd for 500 hours in air at 25degreesC, 75% relative humidity and atmospheric pressure.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for crystalline mirtazapine hydrate of formula (I).

n=1-5.

USE - Mirtazapine is used as an antidepressant.

ADVANTAGE - Stable anhydrous mirtazapine crystals with low hygroscopicity can be prepared simply on an industrial scale.

pp; 37 DwgNo 0/10

Technology Focus:

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preparation: Anhydrous mirtazapine crystals are prepared by drying mirtazapine hydrate crystals. Mirtazapine hydrate crystals are prepared by crystallizing crude mirtazapine from a water soluble solvent and water.

Title Terms: NEW; STABILISED; ANHYDROUS; CRYSTAL; LOW; HYGROSCOPIC; USEFUL;

ANTIDEPRESSANT

Derwent Class: B02

International Patent Class (Main): C07D-471/14

International Patent Class (Additional): A61K-031/55; A61P-025/24

File Segment: CPI

Manual Codes (CPI/A-N): B06-D18; B12-M06; B12-M11H; B14-J01A1

Chemical Fragment Codes (M2):

01 C108 C550 C800 C801 C802 C803 C804 C805 C807 D012 E330 H1 H181 H2
 H201 M210 M211 M273 M281 M320 M411 M511 M520 M530 M540 M710 M720
 M904 M905 N511 N512 N513 N520 Q620 R032 RA4CW5-N RA4CW5-P 47078

02 C108 C550 C800 C801 C802 C803 C804 C805 C807 D012 E330 H1 H181 H2
 H201 M210 M211 M273 M281 M320 M411 M511 M520 M530 M540 M710 M720
 M904 M905 N511 N512 N513 N520 Q620 R032 RA4CVU-N RA4CVU-P 47078

03 C108 C550 C800 C801 C802 C803 C804 C805 C807 D012 E330 H1 H181 H2
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 M904 M905 N511 N512 N513 N520 Q620 R032 RA4CVX-N RA4CVX-P 47078

04 C108 C550 C800 C801 C802 C803 C804 C805 C807 D012 E330 H1 H181 H2
 H201 M210 M211 M273 M281 M320 M411 M511 M520 M530 M540 M710 M720
 M904 M905 N511 N512 N513 N520 Q620 R032 RA4CW2-N RA4CW2-P 47078

05 C108 C550 C800 C801 C802 C803 C804 C805 C807 D012 E330 H1 H181 H2
 H201 M210 M211 M273 M281 M320 M411 M511 M520 M530 M540 M710 M720
 M904 M905 N511 N512 N513 N520 Q620 R032 RA4CW4-N RA4CW4-P 47078

Ring Index Numbers: ; 47078; 47078; 47078; 47078; 47078

Specific Compound Numbers: RA4CW5-N; RA4CW5-P; RA4CVU-N; RA4CVU-P;
 RA4CVX-N
 ; RA4CVX-P; RA4CW2-N; RA4CW2-P; RA4CW4-N; RA4CW4-P

Key Word Indexing Terms:

01 101069-0-0-4-CL, NEW, PRD 101069-0-0-5-CL, NEW, PRD
 101069-0-0-1-CL, NEW, PRD 101069-0-0-2-CL, NEW, PRD
 101069-0-0-3-CL, NEW, PRD

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Basic Patent (No,Kind,Date): WO 200138329 A1 20010531 <No. of Patents:
 004>

PATENT FAMILY:

AUSTRALIA (AU)

Patent (No,Kind,Date): AU 200060199 A5 20010604

ANHYDROUS MIRTAZAPINE CRYSTALS AND PROCESS FOR PRODUCING THE
 SAME

(English)

Patent Assignee: SUMIKA FINE CHEMICALS CO LTD
 Author (Inventor): IISHI EIICHI; IMAMIYA YOSHIYUKI
 Priority (No,Kind,Date): JP 99333049 A 19991124; JP 200067476 A
 20000310; WO 2000JP4835 W 20000719
 Applc (No,Kind,Date): AU 200060199 A 20000719
 IPC: * C07D-471/14; A61K-031/55; A61P-025/24
 CA Abstract No: * 135(01)012412E; 135(01)012413F
 Language of Document: English
 Patent (No,Kind,Date): AU 200074471 A5 20010604

ANHYDROUS MIRTAZAPINE CRYSTALS AND PROCESS FOR THE PRODUCTION
 THEREOF

(English)

Patent Assignee: SUMIKA FINE CHEMICALS CO LTD
 Author (Inventor): IISHI EIICHI; IMAMIYA YOSHIYUKI
 Priority (No,Kind,Date): JP 99333049 A 19991124; JP 200067476 A
 20000310; WO 2000JP4835 A 20000719; WO 2000JP6687 W 20000928
 Applc (No,Kind,Date): AU 200074471 A 20000928
 IPC: * C07D-471/14; A61K-031/55; A61P-025/24
 CA Abstract No: * 135(01)012412E; 135(01)012413F
 Language of Document: English

UNITED STATES OF AMERICA (US)

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US 2000697329 A 20001027 US REFW CORRESPONDS TO PCT
 APPLICATION (ENTSPRICH PCT ANMELDUNG)
 WO 200138329 P
 US 2000697329 A 20001027 US REFW CORRESPONDS TO PCT
 APPLICATION (ENTSPRICH PCT ANMELDUNG)
 WO 200138330 P

WORLD INTELLECTUAL PROPERTY ORGANIZATION, PCT (WO)

Patent (No,Kind,Date): WO 200138329 A1 20010531

ANHYDROUS MIRTAZAPINE CRYSTALS AND PROCESS FOR PRODUCING THE
 SAME

(English)

Patent Assignee: SUMIKA FINE CHEMICALS CO LTD (JP); IISHI EIICHI
 (JP); IMAMIYA YOSHIYUKI (JP)

Author (Inventor): IISHI EIICHI (JP); IMAMIYA YOSHIYUKI (JP)

Priority (No,Kind,Date): JP 99333049 A 19991124; JP 200067476 A
 20000310

Applc (No,Kind,Date): WO 2000JP4835 A 20000719

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 CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE

Filing Details: WO 100000 With international search report

IPC: * C07D-471/14; A61K-031/55; A61P-025/24

CA Abstract No: ; 135(01)012412E

Language of Document: Japanese

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ANHYDROUS MIRTAZAPINE CRYSTALS AND PROCESS FOR THE PRODUCTION
THEREOF

(English)

Patent Assignee: SUMIKA FINE CHEMICALS CO LTD (JP); IISHI EIICHI (JP); IMAMIYA YOSHIYUKI (JP)

Author (Inventor): IISHI EIICHI (JP); IMAMIYA YOSHIYUKI (JP)

Priority (No,Kind,Date): JP 99333049 A 19991124; JP 200067476 A 20000310; WO 2000JP4835 W 20000719

Applic (No,Kind,Date): WO 2000JP6687 A 20000928

Designated States: (National) AU; CA; IN; JP; US (Regional) AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE

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CA Abstract No: ; 135(01)012413F

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Language of Document: Japanese

WORLD INTELLECTUAL PROPERTY ORGANIZATION, PCT (WO)

Legal Status (No,Type,Date,Code,Text):

WO 200138329 P 19991124 WO AA PRIORITY (PATENT)

JP 99333049 A 19991124

WO 200138329 P 20000310 WO AA PRIORITY (PATENT)

JP 200067476 A 20000310

WO 200138329 P 20000719 WO AE APPLICATION DATA (APPL. DATA)

WO 2000JP4835 A 20000719

WO 200138329 P 20001027 WO ENP ENTRY INTO THE NATIONAL PHASE IN:

US 697329 A 20001027

WO 200138329 P 20010531 WO AK DESIGNATED STATES CITED IN A PUBLISHED APPLICATION WITH SEARCH REPORT (DESIGNATED STATES CITED IN A PUBLISHED APPL. WITH SEARCH REPORT)

AU CA IN JP US

WO 200138329 P 20010531 WO AL DESIGNATED COUNTRIES FOR REGIONAL PATENTS CITED IN A PUBLISHED APPLICATION WITH SEARCH REPORT (DESIGNATED COUNTRIES FOR REGIONAL PATENTS CITED IN A PUBLISHED APPL. WITH SEARCH REPORT)
AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

WO 200138329 P 20010531 WO A1 PUBLICATION OF THE

INTERNATIONAL APPLICATION WITH THE
 INTERNATIONAL SEARCH REPORT (PUB. OF THE
 INTERNATIONAL APPL. WITH THE INTERNATIONAL
 SEARCH REPORT)

WO 200138329 P 20010725 WO 121 EP: THE EPO HAS BEEN
 INFORMED BY WIPO THAT EP WAS DESIGNATED IN
 THIS APPLICATION

WO 200138330 P 19991124 WO AA PRIORITY (PATENT)
 JP 99333049 A 19991124

WO 200138330 P 20000310 WO AA PRIORITY (PATENT)
 JP 200067476 A 20000310

WO 200138330 P 20000719 WO AA PCT-APPLICATION (PCT-APPL.)
 WO 2000JP4835 W 20000719

WO 200138330 P 20000928 WO AE APPLICATION DATA (APPL.
 DATA)
 WO 2000JP6687 A 20000928

WO 200138330 P 20001027 WO ENP ENTRY INTO THE NATIONAL
 PHASE IN:
 US 697329 A 20001027

WO 200138330 P 20010531 WO AK DESIGNATED STATES CITED IN A
 PUBLISHED APPLICATION WITH SEARCH REPORT
 (DESIGNATED STATES CITED IN A PUBLISHED APPL.
 WITH SEARCH REPORT)
 AU CA IN JP US

WO 200138330 P 20010531 WO AL DESIGNATED COUNTRIES FOR
 REGIONAL PATENTS CITED IN A PUBLISHED
 APPLICATION WITH SEARCH REPORT (DESIGNATED
 COUNTRIES FOR REGIONAL PATENTS CITED IN A
 PUBLISHED APPL. WITH SEARCH REPORT)
 AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC
 NL PT SE

WO 200138330 P 20010531 WO A1 PUBLICATION OF THE
 INTERNATIONAL APPLICATION WITH THE
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WO 200138330 P 20010628 WO DFPE REQUEST FOR PRELIMINARY
 EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH
 MONTH FROM PRIORITY DATE

WO 200138330 P 20010725 WO 121 EP: THE EPO HAS BEEN
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WO 200138330 P 20011114 WO ENP ENTRY INTO THE NATIONAL
 PHASE IN:
 JP 5493 A